

3.3.8.10 Interdunal Wetland

3.3.8.10.1 Community Overview

Interdunal wetlands occupy wind-created hollows that intersect the water table within active dune fields along the Great Lakes shores. They may also occur where moving sand encroaches on nearby wetlands, surrounding and isolating all or portions of them. The vegetation is difficult to characterize because of the small number of sites, the floristic variability that occurs (in part from the great distance between them), and the ephemeral nature of some occurrences. Plants that are at least somewhat representative of the community include twig-rush, little green sedge, Baltic rush, silverweed, pipewort, spike-rushes, ladies-tress orchids, and bladderworts.

Dune systems are rare and not well developed in Wisconsin compared to regions where the prevailing winds and nearshore currents are conducive to moving large quantities of sand around. Interdunal wetlands are known from fewer than ten locations in Wisconsin. All occurrences are small, and only one of them approaches, or slightly exceeds, ten acres. Despite their rarity and limited distribution, these wetlands provide critical habitat for many uncommon plant species, and also provide resting and feeding areas for migrating and resident waterbirds.

3.3.8.10.2 Vertebrate Species of Greatest Conservation Need Associated with Interdunal Wetlands

Two vertebrate Species of Greatest Conservation Need were identified as moderately or significantly associated with interdunal wetland (Table 3-195).

Table 3-195. Vertebrate Species of Greatest Conservation Need that are (or historically were) moderately or significantly associated with interdunal wetland communities.

<i>Species Significantly Associated with Interdunal Wetland</i>	
Herptiles	
Boreal Chorus Frog	
<i>Species Moderately Associated with Interdunal Wetland</i>	
Birds	
Solitary Sandpiper	


In order to provide a framework for decision-makers to set priorities for conservation actions, the species identified in Table 3-195 were subject to further analysis. The additional analysis identified the best opportunities, by Ecological Landscape, for protection, restoration, and/or management of both interdunal wetland and associated vertebrate Species of Greatest Conservation Need. The steps of this analysis were:


- Each species was examined relative to its probability of occurrence in each of the 16 Ecological Landscapes in Wisconsin. This information was then cross-referenced with the opportunity for protection, restoration, and/or management of interdunal wetland in each of the Ecological Landscapes (Tables 3-196 and 3-197).
- Using the analysis described above, a species was further selected if it had both a significant association with interdunal wetland and a high probability of occurring in an Ecological Landscape(s) that represents a major opportunity for protection, restoration and/or management of interdunal wetland. These species are shown in Figure 3-48.


Table 3-196. Vertebrate Species of Greatest Conservation Need that are (or historically were) *significantly* associated with interdunal wetland communities and their association with Ecological Landscapes that support interdunal wetland.

Interdunal Wetland		Herptiles (1)*
Ecological Landscape grouped by opportunity for management, protection, and/or restoration of this community type	Boreal Chorus Frog	
MAJOR		
Superior Coastal Plain		
IMPORTANT		
Central Lake Michigan Coastal		
PRESENT (MINOR)		
Northern Lake Michigan Coastal		

Color Key

 = HIGH probability the species occurs in this Ecological Landscape

 = MODERATE probability the species occurs in this Ecological Landscape


 = LOW or NO probability the species occurs in this Ecological Landscape


* The number shown in parentheses is the number of Species of Greatest Conservation Need from a particular taxa group that are included in the table. Taxa groups that are not shown did not have any Species of Greatest Conservation Need that met the criteria necessary for inclusion in this table.


Table 3-197. Vertebrate Species of Greatest Conservation Need that are (or historically were) *moderately* associated with interdunal wetland communities and their association with Ecological Landscapes that support interdunal wetland.

Interdunal Wetland		Solitary Sandpiper Birds (1)*
Ecological Landscape grouped by opportunity for management, protection, and/or restoration of this community type		
MAJOR		
Superior Coastal Plain		
IMPORTANT		
Central Lake Michigan Coastal		
PRESENT (MINOR)		
Northern Lake Michigan Coastal		

Color Key

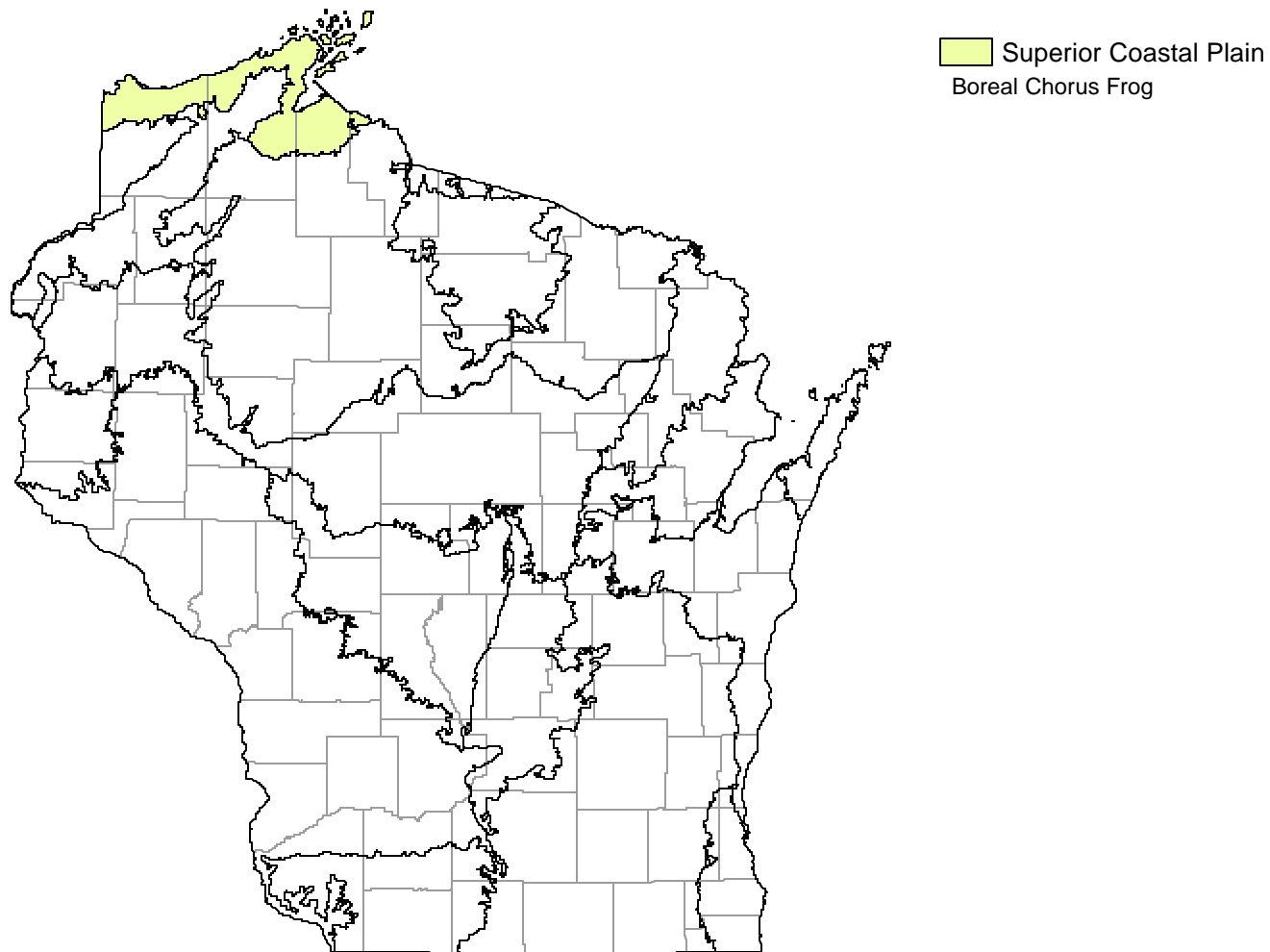
 = HIGH probability the species occurs in this Ecological Landscape

 = MODERATE probability the species occurs in this Ecological Landscape

 = LOW or NO probability the species occurs in this Ecological Landscape

* The number shown in parentheses is the number of Species of Greatest Conservation Need from a particular taxa group that are included in the table. Taxa groups that are not shown did not have any Species of Greatest Conservation Need that met the criteria necessary for inclusion in this table.

Figure 3-48. Vertebrate Species of Greatest Conservation Need that have both a significant association with interdunal wetland and a high probability of occurring in an Ecological Landscape(s) that represents a major opportunity for protection, restoration and/or management of interdunal wetland.



3.3.8.10.3 Threats and Priority Conservation Actions for Interdunal Wetland

3.3.8.10.3.1 Statewide Overview of Threats and Priority Conservation Actions for Interdunal Wetland

The following list of threats and priority conservation actions were identified for interdunal wetland in Wisconsin. The threats and priority conservation actions described below apply to all of the Ecological Landscapes in Section 3.3.8.10.3.2 unless otherwise indicated.

Threats and Issues

- Disruption of hydrology, at local and Great Lakes basin scales, is one of the greatest threats.
- Invasive plants such as purple loosestrife threaten to crowd out native species at several locations.
- Off-road vehicles, horses, or heavy foot traffic can trample sensitive vegetation and facilitate the spread of invasive species.
- Construction of jetties, seawalls, or roads can disrupt the movement of sand upon which the dune systems are ultimately dependent.

Priority Conservation Actions

- All known interdunal wetlands occur on public lands. Some of them receive a high level of protection, others would benefit from additional protective measures that would limit potentially damaging activities.
- Inform managers of the ecological significance and fragility of lake dunes. Manage these wetland communities as integral components of active dune systems whenever possible, maintaining natural shoreline processes.
- Control invasive plants as needed, including native shrubs such as speckled alder and red-osier dogwood.
- A number of rare invertebrates are known from dune environments. Expanded surveys that would include the interdunal wetlands could yield additional records of rare species.

3.3.8.10.3.2 Additional Considerations for Interdunal Wetland by Ecological Landscape

Special considerations have been identified for those Ecological Landscapes where major or important opportunities for protection, restoration, and/or management of interdunal wetland exist. Those considerations are described below and are in addition to the statewide threats and priority conservation actions for interdunal wetland found in Section 3.3.8.10.3.1.

Additional Considerations for Interdunal Wetland in Ecological Landscapes with **Major** Opportunities for Protection, Restoration, and/or Management

Superior Coastal Plain

All known occurrences are associated with sandscapes. Those in the Apostle Islands Archipelago are well-protected. Others, such as those at Wisconsin-Minnesota Points, are subject to intensive recreational use during the summer months and would benefit from additional protective measures as well as active efforts to control purple loosestrife and encroaching woody vegetation.

Additional Considerations for Interdunal Wetland in Ecological Landscapes with **Important** Opportunities for Protection, Restoration, and/or Management

Central Lake Michigan Coastal

Though rare in this landscape, one of the state's largest interdunal wetlands occurs within Kohler-Andrae State Park (Sheboygan County).

Northern Lake Michigan Coastal

Several small but floristically rich occurrences are known from the Grand Traverse Islands off the northern Door Peninsula.